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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,091	06/30/2003	Robert J. Steger	015290-682	8130

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BURNS, DOANE, SWECKER & MATHIS, L.L.P.  
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Alexandria, VA 22313-1404

EXAMINER
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DHINGRA, RAKESH KUMAR

ART UNIT	PAPER NUMBER
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1792

MAIL DATE	DELIVERY MODE
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05/12/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 10/608,091	<b>Applicant(s)</b> STEGER, ROBERT J.	
	<b>Examiner</b> RAKESH K. DHINGRA	<b>Art Unit</b> 1792	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 25 April 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 03 months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: None.  
 Claim(s) objected to: None.  
 Claim(s) rejected: 1-3, 5-12, 15-23, 32 and 33.  
 Claim(s) withdrawn from consideration: 13, 14, 24-29 and 31.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see continuation sheet.  
 12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.

/Rakesh K Dhingra/  
 Examiner, Art Unit 1792

## Response to applicant's arguments

Claims 1, 2, 10, 12, 15, 16, 21 and 23

1. No Disclosure of Heating and Cooling of the Heat Transfer Member at a Rate of From About 0.25-2°C/sec With a Circulated liquid  
a. Chiang Provides No Disclosure of Heating and Cooling Rates

In response to applicant's argument that Chiang provides no disclosure of heating and cooling rates, much less heat and cooling at a rate of from about 0.25- 2°C/sec, examiner states that Ramanan et al teach the controller can be agile enough to achieve the heating and cooling rates of 1 degree C/sec to 50 Degrees C/sec (col. 4, lines 45-55) {as against claim limitation of 0.25- 2 degrees C/sec – which is a functional limitation}. Chiang et al reference is cited for its teaching pertaining to heating and/or cooling of heat transfer member by a temperature controlled fluid, rather than for the heating and/or cooling rate of 0.25 - 2 degrees C/sec.

b. The Heating and Cooling Rate of Ramanan Is Achieved With a Resistive Heater Coupled With a Higher Thermal Mass Cooling Member  
Applicant argues that Ramanan discloses that the heating or chilling rates of 1°C/second to 50°C/second can be achieved by resistively heating back-plate 20 or contacting it with thermally massive heat sink cooling member 26.

Examiner responds that claimed limitation "heating and cooling of the heat transfer member at a rate of from about 0.25-2°C/sec" pertains to the controller, and Ramanan et al teach that controller can be agile enough to achieve the heating and cooling rates of 1 degree C/sec to 50 Degrees C/sec, that meets the claim limitation of 0.25- 2 degrees C/sec.

2. The Official Action Has Not Addressed the Claim Feature of Heating is Performed Solely by the Heat Transfer Member  
Responding to applicant's contention that the Office Action has neither addressed the claim feature that "heating is performed solely by the heat transfer member" in Claims 32 and 33 nor provided any specific citation in Gaylord, examiner states that Chiang teaches that – "Control system 330 is designed to control the temperature of substrate 8, by heating and/or cooling, for a wide range of power and temperature. Temperature control can be accomplished by various techniques, including regulating the backside gas pressure, heating ESC 6 directly with resistive heater 72, or regulating the temperature and/or flow of fluid in coolant channels 78" (col. 22, lines 22-30). Thus Chiang et al teach that heat and/or cooling (this would include the claims 32, 33 limitation "heating ---- solely----") can be accomplished by controlling the temperature and/or flow of the fluid in the cooling channels 78, which meets the claims 32, 33 limitation "wherein heating is performed solely by the heat transfer member". Since this teaching of Chiang was cited under claim 1 rejection in the last office action (page 5, paragraph starting with Chiang et al teach -----), it was not explicitly cited again under rejection of dependent claims 32, 33.

3. No Disclosure of Heating Solely by the Heat Transfer Member

a. Yatsuda Provides No Disclosure of Heating Performed Solely by the Heat Transfer Member

In response to applicant's contention that Yatsuda provides no disclosure that worktable 18 is heated solely by flowing a liquid through cooling jacket 34, examiner responds that as explained above Chiang teaches the claim limitation "heating solely by the heat transfer member". Yatsuda is not relied upon for this claim limitation.

b. The Process Chamber of Chiang Is Resistively Heated

Responding to applicant's contention that Chiang provides no disclosure or suggestion that pedestal 4 is heating solely by a flowing a liquid through coolant channels 78, examiner clarifies that as already explained above (under the paragraph - The Official Action Has Not Addressed the Claim Feature of Heating is Performed Solely by the Heat Transfer Member) Chiang teaches the claim limitation "heating solely by the heat transfer member" (Chiang et al – col. 22, lines 22-30).

c. The Backplate of Ramanan Is Resistively Heated

Applicant argues that Ramanan provides no disclosure that back-plate 20 is heated solely by flowing a liquid.

Examiner responds that, as explained above, Chiang teaches the claim limitation that the substrate (substrate support) can be heated by controlling the temperature and/or flow of the fluid in the cooling channels 78.

d. The Barrel Reactor of Gaylord Is Heated With Heat Lamps

Applicant argues that Gaylord provides no disclosure or suggestion of heating solely by flowing a liquid.

Examiner responds that, as explained above, Chiang teaches the claim limitation that the substrate (substrate support) can be heated by controlling the temperature and/or flow of the fluid in the cooling channels 78.

In view of above, Yatsuda in view of Chiang and Ramanan teach all limitations of claims 1, 15, including the now added limitation "wherein heating is performed solely by the heat transfer member" and the rejection under 35 USC 103 (a) is maintained. {Examiner notes that claim limitation "wherein heating is performed solely by the heat transfer member" pertains to structure of the apparatus, and thus appears to be incorrectly added / linked to the controller function, in the now amended claim 1. Further, claim limitation "wherein heating is performed solely by the heat transfer member", does not explicitly indicate whose heating is performed solely by the heat transfer member, i.e. a substrate etc. Additionally, as per applicant's disclosure, in addition to temperature control by the coolant fluid, temperature control is also carried out through the heat transfer gas that flows in between the substrate and the top surface of the substrate support. Thus, claim limitation "heating is performed solely by the heat transfer member" may need to be reviewed by the applicant}.

Accordingly, in view of comments given above regarding claim 1, 15 the rejection of these claims and their dependent claims 2, 3, 5-12, 16-23, 32 and 33 under 35 USC 103 (a) is maintained.

